

REMARKS

Claims 1-21 and 23 were presented for examination in the present application, and are presented for consideration upon entry of the instant amendment, which is respectfully requested. Claims 1 and 10 are independent.

Independent claims 1 and 10, as well as dependent claims 2-9 and 11-21, were rejected under 35 U.S.C. §103(a) over U.S. Publication No. 2003/0053454 to Katsavounidis et al. (Katsavounidis).

Applicant respectfully submits that clarified claims 1 and 10 are not disclosed or suggested by the cited art.

Independent claim 1 recites that the security-relevant data is transmitted in at least one packet and each of the respective redundant information based solely on all the security-relevant data of the respective one packet is transmitted in a separate packet.

Independent claim 10 recites the packet-oriented embedding of the security-relevant data into at least one packet and for the packet-oriented embedding of each allocated redundant information respectively based solely on all the security relevant data of a respective one packet into a separate packet.

In contrast, Katsavounidis discloses a method of providing forward error correction (FEC) on a plurality of frame packets. The method provides for concatenating selected portions of packet data corresponding to a plurality of frame packets for a first frame; generating forward error correction bits for the concatenated selected portions of packet data; and transmitting the forward error correction bits in a separate packet identified with a user data identifier code or the like, including other unique identifier codes to be assigned in the future by MPEG-standards committee and the like. See paragraph [0017]. Katsavounidis further provides an error correction

generation circuit, comprising: a first instruction stored in processor readable memory configured to generate forward error correction data for selected portions of packet data that are to be transmitted in a corresponding plurality of frame packets; a second instruction stored in processor readable memory configured to store the forward error correction data in a first packet separate from the plurality of frame packets; and a third instruction stored in processor readable memory configured to identify the first packet with a first data identifier code. See paragraph [0018]. Therefore, selected portions for which an FEC coding should be applied are part of a plurality of packets of Katsavounidis, and these selected portions of the plurality of packets are concatenated together. Thus, Katsavounidis fails to disclose or suggest that each of the respective redundant information based solely on all the security-relevant data of the respective one packet is transmitted in a separate packet, as recited by claim 1, or that the packet-oriented embedding of the security-relevant data into at least one packet and for the packet-oriented embedding of each allocated redundant information respectively based solely on all the security relevant data of a respective one packet into a separate packet, as recited by claim 10.

In addition, independent claims 1 and 10 have been clarified to recite, in part, that “the security-relevant data of each packet has security-relevant data comprising user data and check data” and that “communication participants verify the proper function of other participants via checking transmission paths over signal chains by exchanging relevant check block data of said check data”.

Katsavounidis provides that the encoder module 106B is optionally used Cyclic Intra Refresh (CIR) to encode a predetermined number of macroblocks (MBs) in each frame, and, thus, CIR provides periodic intra-refresh to constrain possible error propagation. See paragraph [0158]. Katsavounidis also provides that the number of Intra macroblocks in a video object plane (VOP) is specified by the user in the encoder parameter file, and that the number of Intra macroblocks in a VOP depends on target bit rate, frame rate, bit buffer usage, channel noise feedback, and other transmission related parameters. Katsavounidis further provides that the encoder module 106B

estimates the amount of motion for each macroblock and selects heavy motion area to be encoded in INTRA mode to enhance error resiliency, and that the results of the estimation are recorded a refresh map at the macroblock level. See paragraph [0159]. Thus, Katsavounidis provides that a number of Intra macroblocks in a VOP depends on target bit rate, frame rate, bit buffer usage, channel noise feedback, and other transmission related parameters and estimating an amount of motion for each macroblock and selecting heavy motion areas to be encoded, none of which remotely discloses or suggests that the security-relevant data of each packet has security-relevant data comprising user data and check data or that communication participants verify the proper function of other participants via checking transmission paths over signal chains by exchanging relevant check block data of said check data, as recited by claims 1 and 10.

Accordingly, Applicant respectfully submits that clarified claims 1 and 10, as well as claims 2-9 and 11-21 that depend therefrom, are in condition for allowance.

In addition, dependent claim 12 recites that the means for embedding are allocated means for the generation of the redundant information with the same number of bits (n) as the security-relevant data to be transmitted.

The Office Action asserts that Katsavounidis teaches claim 12 at paragraphs 0016-0017, i.e. using forward error correction.

However, as discussed above, paragraph 0017 of Katsavounidis provides that selected portions for which an FEC coding should be applied are part of a plurality of packets, and these selected portions of the plurality of packets are concatenated together. In addition, paragraph 0016 of Katsavounidis provides FEC coding is efficiently and selectively applied in real-time to important data, such as motion vectors, DC coefficients and header information, rather than generating FEC bits for unimportant or less important data, and that this selected important data may be located in a packet between a packet resync field and a motion marker. Paragraph 0016 of Katsavounidis

further provides, for a given frame or VOP, the selected packet bits targeted for FEC coding are concatenated together and the FEC code bits are generated for the concatenated bits. Thus, Katsavounidis fails to disclose or suggest redundant information with the same number of bits (n) as the security-relevant data to be transmitted, as recited by claim 12.

Accordingly, Applicant respectfully submits that claim 12 is in condition for allowance.

Reconsideration and withdrawal of the rejection to claims 1-21 are respectfully requested.

Dependent claim 23 was rejected under 35 U.S.C. §103(a) over Katsavounidis in view of U.S. Publication No. 2003/0200323 to Dold et al. (Dold).

As discussed above, Katsavounidis fails to disclose or suggest claim 10.

Dold fails remedies the deficiencies described above for claim 10.

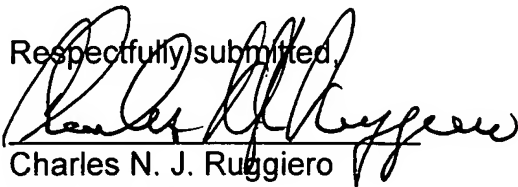
Accordingly, Applicant respectfully submits that claim 23, that depends from claim 10, is in condition for allowance. Reconsideration and withdrawal of the rejection to claim 23 are respectfully requested.

In view of the above, it is respectfully submitted that the present application is in condition for allowance. Such action is solicited.

In the alternative, Applicant submits that the instant amendment places the present application in better condition for appeal. Accordingly, entry and consideration of the instant amendment, at least for the purposes of appeal, are respectfully requested.

If for any reason the Examiner feels that consultation with Applicant's attorney would be helpful in the advancement of the prosecution, the Examiner is invited to call the telephone number below.

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Respectfully submitted,

Charles N. J. Ruggiero
Reg. No. 28,468
Attorney for Applicant(s)
Ohlandt, Greeley, Ruggiero & Perle, L.L.P.
One Landmark Square, 10th floor
Stamford, CT 06901-2682
Tel: (203) 327-4500
Fax: (203) 327-6401